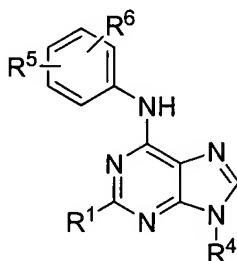


**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently amended): A compound of formula I:



wherein:

R<sup>1</sup> is a member selected from the group consisting of hydrogen, halogen and -L-R<sup>2</sup>;

L is a member selected from the group consisting of -O- and -NR<sup>3</sup>-, wherein R<sup>3</sup> is H, or R<sup>3</sup> is optionally taken together with R<sup>2</sup> and the nitrogen to which both are attached to form a heterocycle, optionally substituted with C<sub>1-4</sub>alkyl;

R<sup>2</sup> is a member selected from the group consisting of C<sub>1-4</sub>alkyl and aryl-C<sub>0-2</sub>alkyl, substituted with 0-2 R<sup>2a</sup> groups that are independently selected from the group consisting of halogen, C<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkoxy, -N(R<sup>2b</sup>, R<sup>2b</sup>), -SO<sub>2</sub>N(R<sup>2b</sup>, R<sup>2b</sup>), -C(O)N(R<sup>2b</sup>, R<sup>2b</sup>) and -O-aryl, or when said R<sup>2a</sup> groups are on adjacent ring atoms they are optionally taken together to form a member selected from the group consisting of -O-(CH<sub>2</sub>)<sub>1-2</sub>-O-, -O-C(CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>- and -(CH<sub>2</sub>)<sub>3-4</sub>;

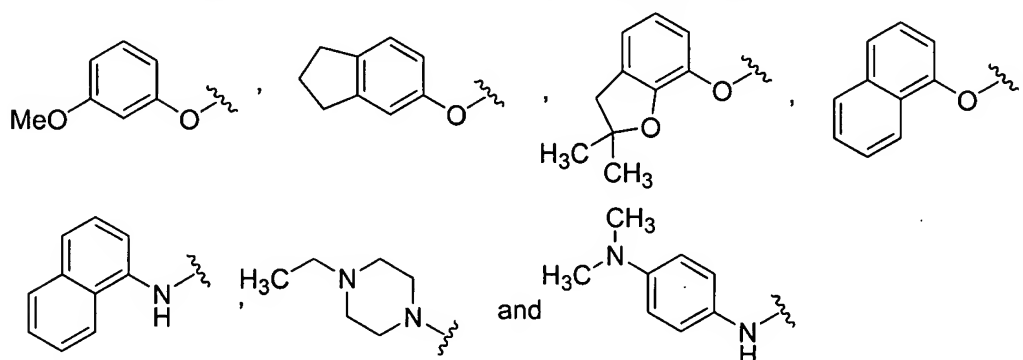
each R<sup>2b</sup> group is a member that is independently selected from the group consisting of hydrogen and C<sub>1-4</sub>alkyl;

R<sup>4</sup> is a member selected from the group consisting of C<sub>1-4</sub>alkyl, C<sub>3-8</sub>cycloalkyl, hydroxy-C<sub>1-4</sub>alkyl, aryl-C<sub>0-3</sub>alkyl, substituted with 0-2 R<sup>4a</sup> groups, cyclohexylmethyl and heterocyclo-C<sub>0-2</sub>alkyl, optionally substituted with C<sub>1-4</sub>alkyl;

each R<sup>4a</sup> group is a member independently selected from the group consisting of hydrogen, halogen, C<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkoxy, ~~C<sub>3-8</sub>cycloalkyl~~, aryl-C<sub>0-2</sub>alkyl and aryl, or when said R<sup>4a</sup> groups are on adjacent ring atoms they are optionally taken together to form -O-(CH<sub>2</sub>)<sub>1-2</sub>-O-; R<sup>5</sup> is hydrogen and R<sup>6</sup> is -N(R<sup>7</sup>, R<sup>8</sup>), or when R<sup>5</sup> and R<sup>6</sup> are on adjacent ring atoms they are optionally taken together to form -O-(CH<sub>2</sub>)<sub>1-2</sub>-O-; R<sup>7</sup> and R<sup>8</sup> are taken together with the nitrogen to which they are attached to form a heterocycloalkyl ~~heterocycle~~, optionally substituted with C<sub>1-4</sub>alkyl; and all pharmaceutically acceptable salts and hydrates thereof.

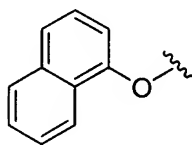
2. (Original): A compound of claim 1, wherein:

R<sup>1</sup> is a member selected from the group consisting of:



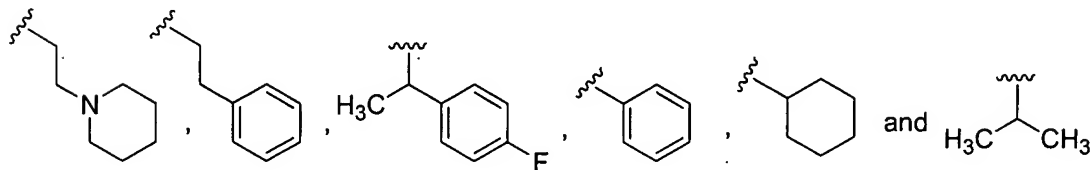
3. (Original): A compound of claim 1, wherein:

R<sup>1</sup> is



4. (Original): A compound of claim 1, wherein:

R<sup>4</sup> is a member selected from the group consisting of:



5. (Original): A compound of claim 1, wherein:

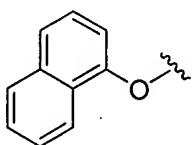
$R^4$  is cyclohexyl.

6. (Original): A compound of claim 1, wherein:

$R^5$  is H and  $R^6$  is morpholine.

7. (Original): A compound of claim 1, wherein:

$R^1$  is

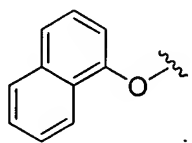


$R^5$  is H; and

$R^6$  is morpholine.

8. (Original): A compound of claim 1, wherein:

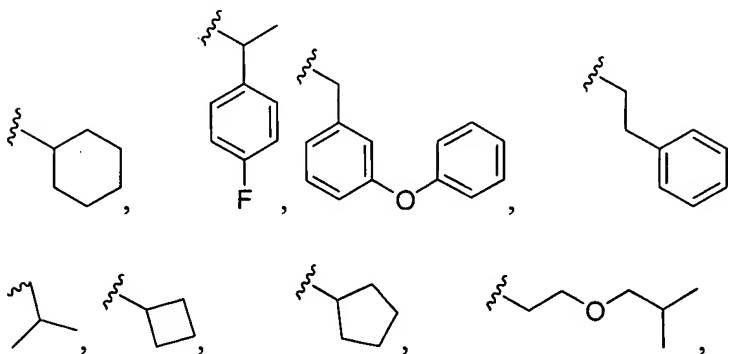
$R^1$  is

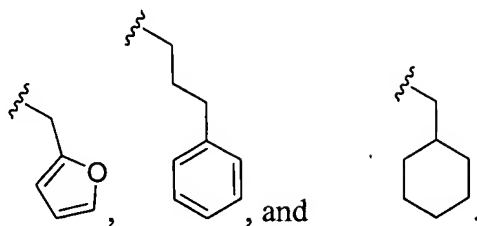


$R^5$  is H;

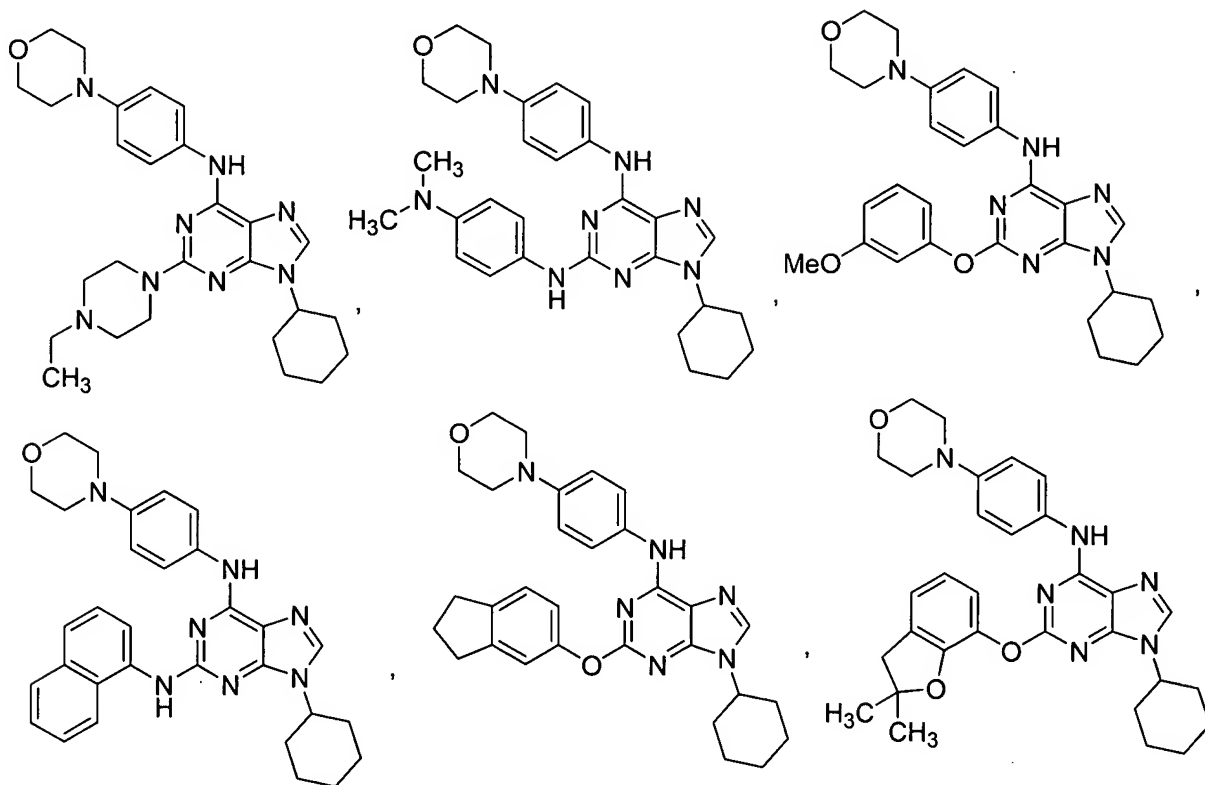
$R^6$  is morpholine; and

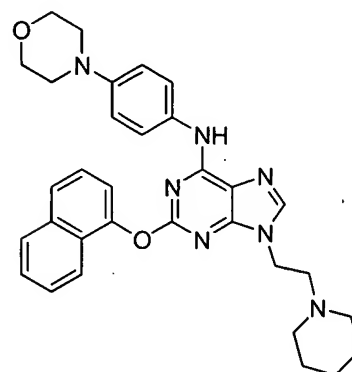
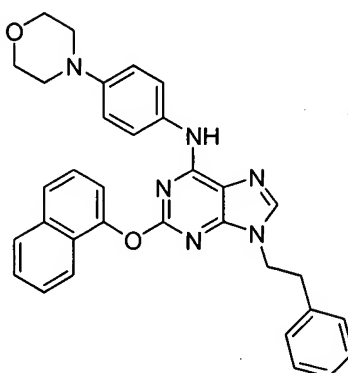
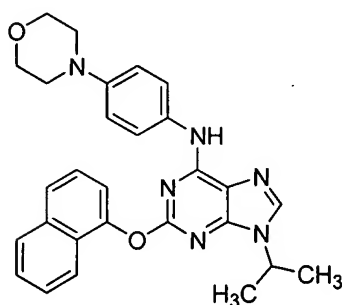
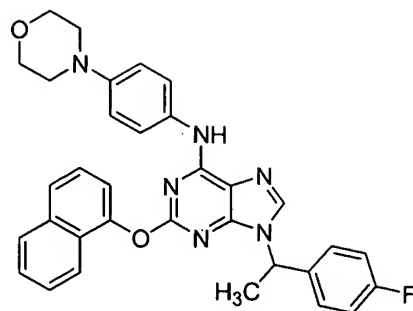
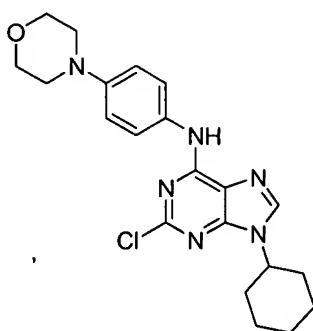
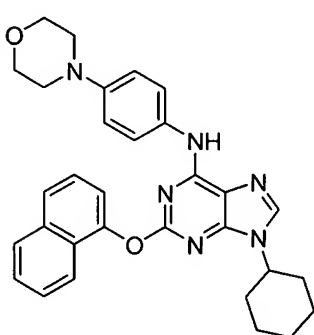
$R^4$  is a member selected from the group consisting of:



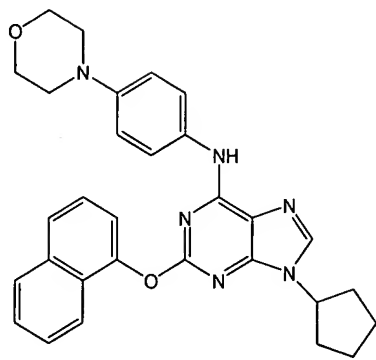
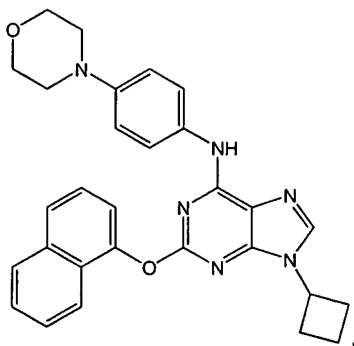
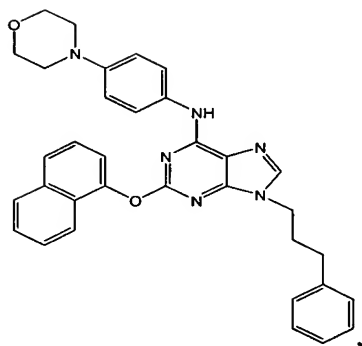


1 9. (Original): A compound of claim 1, wherein the compound is a member  
2 selected from the group consisting of:

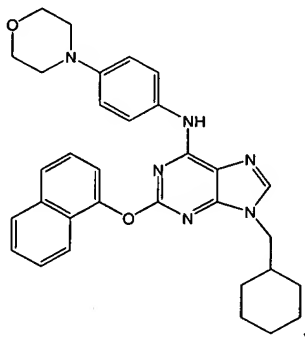
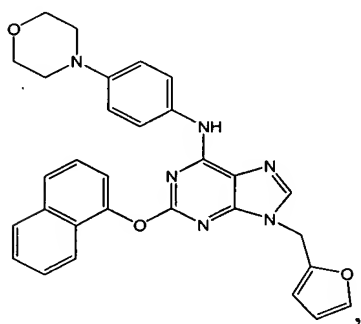




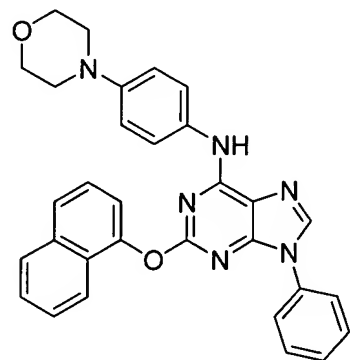
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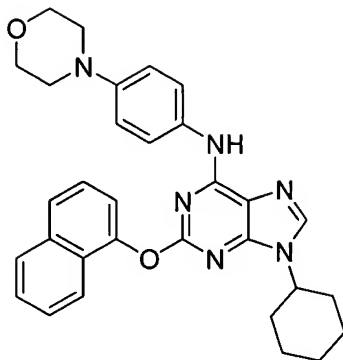
and



6

1

10. (Original): A compound of claim 1, wherein the compound is:



11. (Original): A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier.

12. (Original): A method of inducing osteogenesis, the method comprising:  
contacting a mammalian cell with a compound of claim 1, whereby the  
mammalian cell differentiates into a cell of an osteoblast lineage.

13. (Original): The method of claim 12, wherein said compound of claim 1 is in a pharmaceutically acceptable carrier.

14. (Original): The method of claim 12, wherein the mammalian cell is in a mammal.

15. (Original): The method of claim 14, wherein the step of contacting is by oral administration of the compound to the mammal.

16. (Original): The method of claim 14, wherein the step of contacting is by intravenous administration of the compound to the mammal.

17. (Original): The method of claim 14, wherein the step of contacting is by subcutaneous administration of the compound to the mammal.

18. (Original): The method of claim 14, wherein the step of contacting is by intraperitoneal administration of the compound to the mammal.

1                   19. (Original): The method of claim 12, further comprising detecting  
2 differentiation of the mammalian cell into a cell of an osteoblast lineage.

1                   20. (Original): The method of claim 19, whereby differentiation of the  
2 mammalian cell into a cell of an osteoblast lineage is detected by detecting expression of an  
3 osteogenesis marker gene.

1                   21. (Original): The method of claim 20, wherein the osteogenesis marker gene is  
2 a gene selected from the group consisting of alkaline phosphatase, collagen type I, osteocalcin,  
3 and osteoponin.

1                   22. (Original): The method of claim 19, whereby differentiation of the  
2 mammalian cell into a cell of an osteoblast lineage is detected by detecting expression of a bone  
3 specific transcription factor.

1                   23. (Original): The method of claim 22, wherein the bone specific  
2 transcription factor is Cbfa1/Runx2.

1                   24. (Original): The method of claim 12, wherein the mammalian cell is a stem  
2 cell.

1                   25. (Original): The method of claim 24, wherein the stem cell is a mesenchymal  
2 stem cell.

1                   26. (Original): The method of claim 25, wherein the mesenchymal stem cell is  
2 isolated from a mouse.

1                   27. (Original): The method of claim 26, wherein the mesenchymal stem cell is  
2 murine embryonic mesoderm fibroblast cell.

1                   28. (Original): The method of claim 25, wherein the mesenchymal stem cell is  
2 isolated from a primate.

1                   29. (Original): The method of claim 28, wherein the primate is a human.

1                   30. (Original): The method of claim 12, wherein the mammalian cell is further  
2 contacted with bone morphogenetic protein 4 (BMP-4).

1                   31. (Original): The method of claim 30, wherein the mammalian cell is a  
2 pre-adipocyte cell.

1                   32. (Original): The method of claim 30, wherein the mammalian cell is a  
2 myoblast cell.

1                   33. (Original): The method of claim 12, wherein the mammalian cell is attached  
2 to a solid support.

1                   34. (Original): The method of claim 33, wherein the solid support is a three  
2 dimensional matrix.

1                   35. (Original): The method of claim 33, wherein the solid support is a planar  
2 surface.

1                   36. (Original): A method of inducing osteogenesis, the method comprising:  
2 contacting a mammalian cell with a compound of claim 10, whereby the  
3 mammalian cell differentiates into a cell of an osteoblast lineage.

1                   37. (Original): The method of claim 36, wherein the mammalian cell is in a  
2 mammal.

1                   38. (Original): The method of claim 36, wherein the step of contacting is by oral  
2 administration of the compound to the mammal.

1                   39. (Original): The method of claim 36, wherein the step of contacting is by  
2 intravenous administration of the compound to the mammal.

1                   40. (Original): The method of claim 36, wherein the step of contacting is by  
2 subcutaneous administration of the compound to the mammal.



1                   41. (Original): The method of claim 36, wherein the step of contacting is by  
2 intraperitoneal administration of the compound to the mammal.

1                   42. (Previously presented): A method of treating a bone disorder, the method  
2 comprising:

3                   contacting a mammalian cell with a compound of claim 1, whereby the  
4 mammalian cell differentiates into a cell of an osteoblast lineage, wherein the bone disorder is  
5 associated with defective osteoblasts.

1                   43. (Canceled)

1                   44. (Original): The method of claim 43, wherein the bone disorder is  
2 osteoporosis.

1                   45. (Original): The method of claim 42, further comprising administering the  
2 cell of an osteoblast lineage to an individual with the disorder, thereby treating the disorder.

1                   46. (Original): The method of claim 45, wherein the administration is by surgical  
2 implantation.